T419
Rev. 01-00

West Virginia Division Of Highways

Hot-Mix Asphalt Volumetric Property Worksheet

Lab Number:	Material Type:
Source:	Project:
T400 Design Number:	Field Sample Number:
Compaction Temperature: ℃	Gyrations at $N_{initial}$:
Percent Binder:	Gyrations at N_{design}:
Percent Aggregate (Y):	Gyrations at N_{max}:
Bulk Aggregate Sp. Gr. (Z):	Date Sampled:
Technician:	Date Completed:

Maximum Specific Gravity - Bowl Method (AASHTO T-209)		
A	Sample Weight	
B	Bowl + Sample in Water Weight	
C	Bowl in Water (Calibration Weight)	
D	Surface Dry Sample Weight (For Dry-Back Procedure Only)	
E	Max. Sp. Gr. = A / [A - (B - C)] or Dry-Back Max. Sp. Gr. = A / [D - (B - C)]	

Bulk Specific Gravity At N design - (AASHTO T-166)					
Compacted Specimens		1	2	N_{max} Sample	Average
F	Weight in Air				Bulk Specific
G	Saturated Surface Dry Weight				Gravity At
H	Weight in Water				N_{design}
J	Bulk Specific Gravity = F / (G - H)				
Unit Weight (kg/m^3) = J x 1000					

Void Analysis (AASHTO T-269 And PP-28)		
K	Percent Air Voids (AV) at $'N'_{design}$ = [(E - J) / E] x 100	
L	Percent Voids in Mineral Aggregate (VMA) at $'N'_{design}$ = 100 - [(J x Y) / Z]	
	Percent Voids Filled With Asphalt (VFA) at $'N'_{design}$ = [(L - K) / L] x 100	

Percent of Maximum Specific Gravity of Compacted Specimens				
	1	2	N_{max} Sample	N_{design} Average
Percent of Max. Spec. Gravity at $N_{initial}$:				
Percent of Max. Spec. Gravity at N_{design}:				
Percent of Max. Spec. Gravity at N_{max}:				